What is claimed is

1. A method for encoding a video frame or picture, the method comprising:

dividing up the video frame or the picture in portions of a first type and portions of a second type, wherein the portions of the first type are associated with a first scanning pattern, and the portions of the second type are associated with a second scanning pattern that is different from the first scanning pattern;

transforming data corresponding to a predetermined of the portions of the video frame or picture into a two-dimensional array of transform coefficients, wherein a scanning order is defined among the transform coefficients by the scanning pattern of the predetermined portion, the scanning order assigning each transform coefficient a unique scanning position;

precoding a predetermined of the transform coefficients in order to obtain a transform data unit;

choosing one of a first and a second set of context models, depending on as to whether the predetermined portion is a portion of a type being associated with the first or the second scanning pattern, the first and the second set being different to each other;

assigning one context model of the chosen one of the first and the second set of context models to the transform data unit based on the scanning position assigned to the predetermined transform coefficient,

wherein each context model is associated with a different probability estimation; and

arithmetically encoding the transform data unit or a sub-unit thereof into a coded bit stream based on the probability estimation with which the assigned context model is associated.

2. The method of claim 1, wherein the step of arithmetically encoding is adapted to arithmetically encode the subunit, and wherein the step of precoding comprises:

checking as to whether the predetermined transform coefficient is significant;

if the predetermined transform coefficient is significant, setting a binary significance flag to a first value; and

if the predetermined transform coefficient is not significant, setting the binary significance flag to a second value being different to the first value,

wherein the significance flag is comprised by the sub-unit of the transform data unit.

3. The method of claim 1, wherein the step of arithmetically encoding is adapted to arithmetically encode the subunit, and wherein the step of precoding further comprises:

checking as to whether the predetermined transform coefficient is significant;

if the predetermined transform coefficient is significant,

checking as to whether the predetermined transform coefficient is the last significant transform coefficient among the transform coefficients having assigned a higher scanning position than the predetermined transform coefficient, in order to obtain a check result;

if the check result is positive, setting a binary last significant coefficient flag to a third value;

if the check result is negative, setting the binary last significant coefficient flag to a fourth value, the fourth value being different to the third value,

wherein the last significance coefficient flag is comprised by the sub-unit of the transform data unit.

4. The method of claim 1, wherein the step of precoding is comprised by a step of precoding the transform coefficients, the step of precoding the transform coefficients further comprising the following sub-steps:

a) for the first transform coefficient in scanning order, checking as to whether same is significant;

b) if the first transform coefficient is significant, setting a binary significance flag to a first value;

c) if the predetermined transform coefficient is not significant, setting the binary significance flag to a second value being different to the first value,

d) if the first transform coefficient in scanning order is significant, checking as to whether same is the last significant transform coefficient among the transform coefficients having assigned a higher scanning position than same transform coefficient, in order to obtain a check result;

e) if the check result is positive, setting a binary last significant coefficient flag of the first transform coefficient in scanning order to a third value;

f) if the check result is negative, setting the binary last significant coefficient flag to a fourth value, the fourth value being different to the third value, and

g) repeating steps a)-f) for the next transform coefficient in scanning order;

h) for all transform coefficients, the significance flag of which has the first value, coding a data value indicating the transform coefficient into the coded bit stream,

wherein, for all transform coefficients, the significance flag of which has the first value, the last significant coefficient flag, the significance flag, and the data value a transform data unit, and, for the remaining transform coefficients, the significance flag forms the transform data unit.

5. The method of claim 1, wherein the data corresponding to the predetermined portion concerns a kind of pixel

information, the kind of pixel information being selected of brightness, colour tone, saturation and chrominance.

6. The method of claim 1, wherein the data corresponding to the predetermined portion defines differences between the video frame or picture and a prediction of the video frame or picture with respect to the predetermined portion.

7. The method of claim 1, wherein the video frame or picture is composed of picture samples, the picture samples belonging either to a first or a second field being captured at different time instants, wherein the method comprises:

grouping picture samples belonging to either the first or second field and contained in the predetermined portion of the video frame or picture, to obtain the data corresponding to the predetermined portion or data which the data corresponding to the predetermined portion is based upon, if the predetermined portion is a portion of the first type, or grouping picture samples contained in one of two halves of the predetermined portion and comprising both, picture samples belonging to the first field and picture samples belonging to the second field, to obtain the data corresponding to the predetermined portion or data which the data corresponding to the predetermined portion is based upon, if the predetermined portion is a portion of the second type.

8. The method of claim 1, wherein the picture samples belonging to the first field and the picture samples belonging to the second field are interlaced so that picture samples as grouped if the predetermined portion

is a portion of the first type, have a greater pitch than picture samples as grouped if the predetermined portion is a portion of the second type.

9. The method of claim 1, wherein the step of arithmetically encoding comprises the following steps:

deducing a current arithmetic code interval in accordance with the probability estimation with which the assigned context model is associated to one of two subintervals into which the probability estimation with which the assigned context model is associated separates the current arithmetic code interval, in order to obtain a reduced current arithmetic coding interval, wherein the coded bit stream depends on the reduced current arithmetic coding interval.

10. The method of claim 1, further comprising:

adapting the probability estimation with which the assigned context model is associated based on the syntax element.

11. The method of claim 1 further comprising:

encoding into the bit stream a flag indicating as to whether the predetermined portion is a portion of the first type or a portion of the second type.

12. A method for decoding a transform data unit or a sub-unit thereof from a coded bit stream, the transform data unit being a precoded version of a predetermined transform coefficient of transform coefficients which are the result of a transformation of data corresponding to a

predetermined portion of portions of a video frame or picture, the portions being either a portion of a first type being associated with a first scanning pattern or a portion of a second type being associated with a second scanning pattern, the method comprising the following steps:

choosing one of a first and a second set of context models, depending on as to whether the predetermined portion is a portion of a type being associated with the first or the second scanning pattern, the first and the second set being different to each other;

assigning one context model of the chosen one of the first and the second set of context models to the transform data unit or the sub-unit thereof based on the scanning position assigned to the predetermined transform coefficient, wherein each context model is associated with a different probability estimation; and

arithmetically decoding the transform data unit or the sub-unit thereof from the coded bit stream based on the probability estimation with which the assigned context model is associated.

13. The method of claim 12, wherein the method is for decoding the sub-unit of the transform data unit, and the sub-unit is a significance flag having a first value if the predetermined transform coefficient is significant and has a second value if the predetermined transform coefficient is not significant, the first value being different from the second value.

14. The method of claim 12, wherein the step of investigating comprises the step of investigating a syntax element associated with the neighbouring portion.

15. The method of claim 12, wherein the step of arithmetically decoding comprises the following steps:

checking as to whether an arithmetic codeword value indicated by the coded bit stream falls into a first or a second of two subintervals, into which the probability estimation with which the assigned context model is associated separates a current arithmetic code interval, wherein a value of the transform data unit or the sub-unit thereof depends on the subinterval into which the arithmetic codeword value falls.

16. The method of claim 12, further comprising:

adapting the probability estimation with which the assigned context model is associated based on the transform data unit or the sub-unit thereof.

17. A computer program having instructions for performing, when running on a computer, a method for encoding a video frame or picture, the method comprising:

dividing up the video frame or the picture in portions of a first type and portions of a second type, wherein the portions of the first type are associated with a first scanning pattern, and the portions of the second type are associated with a second scanning pattern that is different from the first scanning pattern;

transforming data corresponding to a predetermined of the portions of the video frame or picture into a two-dimensional array of transform coefficients, wherein a scanning order is defined among the transform coefficients by the scanning pattern of the predetermined portion, the scanning order assigning each transform coefficient a unique scanning position;

precoding a predetermined of the transform coefficients in order to obtain a transform data unit;

choosing one of a first and a second set of context models, depending on as to whether the predetermined portion is a portion of a type being associated with the first or the second scanning pattern, the first and the second set being different to each other;

assigning one context model of the chosen one of the first and the second set of context models to the transform data unit based on the scanning position assigned to the predetermined transform coefficient, wherein each context model is associated with a different probability estimation; and

arithmetically encoding the transform data unit or a sub-unit thereof into a coded bit stream based on the probability estimation with which the assigned context model is associated.

18. A computer program having instructions for performing, when running on a computer, a method for decoding a transform data unit or a sub-unit thereof from a coded bit stream, the transform data unit being a precoded version of a predetermined transform coefficient of

transform coefficients which are the result of a transformation of data corresponding to a predetermined portion of portions of a video frame or picture, the portions being either a portion of a first type being associated with a first scanning pattern or a portion of a second type being associated with a second scanning pattern, the method comprising the following steps:

choosing one of a first and a second set of context models, depending on as to whether the predetermined portion is a portion of a type being associated with the first or the second scanning pattern, the first and the second set being different to each other;

assigning one context model of the chosen one of the first and the second set of context models to the transform data unit or the sub-unit thereof based on the scanning position assigned to the predetermined transform coefficient, wherein each context model is associated with a different probability estimation; and

arithmetically decoding the transform data unit or the sub-unit thereof from the coded bit stream based on the probability estimation with which the assigned context model is associated.

19. An apparatus for encoding a video frame or picture, the method comprising:

means for dividing up the video frame or the picture in portions of a first type and portions of a second type, wherein the portions of the first type are associated with a first scanning pattern, and the portions of the

second type are associated with a second scanning pattern that is different from the first scanning pattern;

means for transforming data corresponding to a predetermined of the portions of the video frame or picture into a two-dimensional array of transform coefficients, wherein a scanning order is defined among the transform coefficients by the scanning pattern of the predetermined portion, the scanning order assigning each transform coefficient a unique scanning position;

means for precoding a predetermined of the transform coefficients in order to obtain a transform data unit;

means for choosing one of a first and a second set of context models, depending on as to whether the predetermined portion is a portion of a type being associated with the first or the second scanning pattern, the first and the second set being different to each other;

means for assigning one context model of the chosen one of the first and the second set of context models to the transform data unit based on the scanning position assigned to the predetermined transform coefficient, wherein each context model is associated with a different probability estimation; and

means for arithmetically encoding the transform data unit or a sub-unit thereof into a coded bit stream based on the probability estimation with which the assigned context model is associated.

20. An apparatus for decoding a transform data unit or a sub-unit thereof from a coded bit stream, the transform data unit being a precoded version of a predetermined transform coefficient of transform coefficients which are the result of a transformation of data corresponding to a predetermined portion of portions of a video frame or picture, the portions being either a portion of a first type being associated with a first scanning pattern or a portion of a second type being associated with a second scanning pattern, the method comprising the following steps:

means for choosing one of a first and a second set of context models, depending on as to whether the predetermined portion is a portion of a type being associated with the first or the second scanning pattern, the first and the second set being different to each other;

means for assigning one context model of the chosen one of the first and the second set of context models to the transform data unit or the sub-unit thereof based on the scanning position assigned to the predetermined transform coefficient, wherein each context model is associated with a different probability estimation; and

means for arithmetically decoding the transform data unit or the sub-unit thereof from the coded bit stream based on the probability estimation with which the assigned context model is associated.